1   **WHAT IS CLAIMED IS:**

2

3   1. A method of processing data carried on a media path
4   between a first network element and a second network
5   element, comprising:
6   - receiving a stream of composite packets from the first
7   network element, each composite packet carrying media
8   information and auxiliary information pertaining to
9   the composite packet;
10   - generating, on a basis of the media information and
11   the auxiliary information carried in the composite
12   packets, an output media stream free of the auxiliary
13   information carried in the composite packets;
14   - releasing the output media stream towards the second
15   network element.

16

17 2. The method defined in claim **1**, wherein generating the
18   output media stream comprises:
19   - removing the auxiliary information from each composite
20   packet.

21

22 3. The method defined in claim **2**, wherein the media
23   information carried in each composite packet comprises
24   compressed media, wherein generating the output media
25   stream further comprises:
26   - converting into waveform data the compressed media
27   carried in each composite packet.

28

29 4. The method defined in claim **1**, wherein the auxiliary
30   information carried in each composite packet identifies
31   an active speaker associated with the composite packet,
32   wherein generating the output media stream comprises:

25

1   - determining from the auxiliary information carried in
2   each composite packet an active speaker associated
3   with the composite packet;
4   - generating an intermediate media stream for each of a
5   plurality of active speakers from the media
6   information carried in each of the composite packets
7   associated with that active speaker;
8   - combining the intermediate media streams into the
9   output media stream.
10
11 5. The method defined in claim **4,** wherein the media
12   information carried in each composite packet comprises
13   compressed media, wherein generating an intermediate
14   media stream for a particular active speaker comprises:
15   - converting into waveform data the compressed media
16   carried in each composite packet associated with the
17   particular active speaker.
18
19 6. The method defined in claim **5,** wherein combining the
20   intermediate media streams into the output media stream
21   comprises:
22   - adding the waveform data carried in the intermediate
23   media streams to generate the output media stream
24   carrying composite waveform data.
25
26 7. The method defined in claim **6,** the method further
27   comprising:
28   - encoding into compressed media the composite waveform
29   data carried in the output media stream.
30
31 8. The method defined in claim **1,** wherein the auxiliary
32   information carried in each composite packet identifies a

26

1   codec type associated with the composite packet, wherein

2   generating the output media stream comprises:

3   - determining from the auxiliary information carried in

4   each composite packet a codec type associated with the

5   composite packet;

6   - generating an intermediate media stream for each of a

7   plurality of codec types from the media information

8   carried in each of the composite packets associated

9   with that active speaker;

10   - combining the intermediate media streams into the

11   output media stream.

12

13 9. The method defined in claim **8,** wherein the media

14   information carried in each composite packet comprises

15   compressed media, wherein generating an intermediate

16   media stream for a particular codec type comprises:

17   - converting into waveform data the compressed media

18   carried in each composite packet associated with the

19   particular codec type.

20

21 10. The method defined in claim **9,** wherein combining the

22   intermediate media streams into the output media stream

23   comprises:

24   - adding the waveform data carried in the intermediate

25   media streams to generate the output media stream

26   carrying composite waveform data.

27

28 11. The method defined in claim **10,** the method further

29   comprising:

30   - encoding into compressed media the composite waveform

31   data carried in the output media stream.

32

1   12. The method defined in claim **1**, wherein the media is

2   speech.

3

4   13. The method defined in claim **1**, wherein the media is

5   audio.

6

7   14. The method defined in claim **1**, wherein the media is

8   still imagery.

9

10   15. The method defined in claim **1**, wherein the media is

11   video.

12

13   16. The method defined in claim **1**, further comprising

14   packetizing the output media stream at a data interface

15   prior to releasing the output media stream towards the

16   second network element.

17

18   17. Apparatus for processing data carried on a media path

19   between a first network element and a second network

20   element, comprising:

21   - means for receiving a stream of composite packets from

22   the first network element, each composite packet

23   carrying media information and auxiliary information

24   pertaining to the composite packet;

25   - means for generating, on a basis of the media

26   information and the auxiliary information carried in

27   the composite packets, an output media stream free of

28   the auxiliary information carried in the composite

29   packets;

30   - means for releasing the output media stream towards

31   the second network element.

32

28

1   18. An apparatus for processing data carried on a media

2   path between a first network element and a second network

3   element, comprising:

4   - a data interface operative to receive a stream of

5   composite packets from the first network element and

6   to release an output media stream towards the second

7   network element, each composite packet carrying media

8   information and auxiliary information pertaining to

9   the composite packet;

10   - a processing entity operative to generate, on a basis

11   of the media information and the auxiliary information

12   carried in the composite packets, the output media

13   stream free of the auxiliary information carried in

14   the composite packets.

15

16   19. The apparatus defined in claim 18, wherein the

17   processing entity being operative to generate the output

18   media stream comprises the processing entity being

19   operative to remove the auxiliary information from each

20   composite packet.

21

22   20. The apparatus defined in claim 19, wherein the media

23   information carried in each composite packet comprises

24   compressed media, further comprising a decoder operative

25   to decode into waveform data the compressed media carried

26   in each composite packet.

27

28   21. The apparatus defined in claim 18, wherein the

29   auxiliary information carried in each composite packet

30   identifies an active speaker associated with the

31   composite packet, wherein the processing entity being

32   operative to generate the output media stream comprises

33   the processing entity being operative to determine from

29

1   the auxiliary information carried in each composite

2   packet an active speaker associated with the composite

3   packet and to generate an intermediate media stream for

4   each of a plurality of active speakers from the media

5   information carried in each of the composite packets

6   associated with that active speaker, the apparatus

7   further comprising:

8   - a combiner operative to combine the intermediate media

9   streams into the output media stream.

10

11   22. The apparatus defined in claim **21**, wherein the media

12   information carried in each composite packet comprises

13   compressed media, further comprising:

14   - for each particular active speaker, a decoder

15   operative to decode into waveform data the compressed

16   media carried in each composite packet associated with

17   the particular active speaker.

18

19   23. The apparatus defined in claim **22** wherein the combiner

20   being operative to combine the intermediate media streams

21   into the output media stream comprises the combiner being

22   operative to add the waveform data carried in the

23   intermediate media streams to generate the output media

24   stream carrying composite waveform data.

25

26   24. The apparatus defined in claim **24**, further comprising:

27   - an encoder operative to encode into compressed media

28   the composite waveform data carried in the output

29   media stream.

30

31   25. The apparatus defined in claim **18**, wherein the

32   auxiliary information carried in each composite packet

33   identifies a codec type associated with the composite

1   packet, wherein the processing entity being operative to
2   generate the output media stream comprises the processing
3   entity being operative to determine from the auxiliary
4   information carried in each composite packet a codec type
5   associated with the composite packet and to generate an
6   intermediate media stream for each of a plurality of
7   codec types from the media information carried in each of
8   the composite packets associated with that active
9   speaker, the apparatus further comprising:
10   - a combiner operative to combine the intermediate media
11   streams into the output media stream.
12

13   26. The apparatus defined in claim **25**, wherein the media
14   information carried in each composite packet comprises
15   compressed media, the apparatus further comprising:
16   - for each particular codec type, a decoder operative to
17   decode into waveform data the compressed media carried
18   in each composite packet associated with the
19   particular codec type.
20

21   27. The apparatus defined in claim **26,** wherein the
22   combiner being operative to combine the intermediate
23   media streams into the output media stream comprises the
24   combiner being operative to add the waveform data carried
25   in the intermediate media streams to generate the output
26   media stream carrying composite waveform data.
27

28   28. The apparatus defined in claim **27,** further comprising:
29   - an encoder operative to encode into compressed media
30   the composite waveform data carried in the output
31   media stream.
32

31

1   29. The apparatus defined in claim **18**, the data interface

2   being further operative to packetize the output media

3   stream at a data interface prior to releasing the output

4   media stream towards the second network element.

5

6   30. A computer program product for use with a conference

7   bridge adapter located in a media path between a first

8   data element and a second data element, the computer

9   program product comprising a computer usable medium

10   having computer readable program code thereon, the

11   computer readable program code including:

12   - program code for receiving a stream of composite

13   packets from the first network element, each composite

14   packet carrying media information and auxiliary

15   information pertaining to the composite packet;

16   - program code for generating, on a basis of the media

17   information and the auxiliary information carried in

18   the composite packets, an output media stream free of

19   the auxiliary information carried in the composite

20   packets;

21   - program code for releasing the output media stream

22   towards the second network element.

23

24   31. A method of processing data carried on a media path

25   between a first network element and a second network

26   element, comprising:

27   - receiving a stream of packets from the first network

28   element, each received packet carrying media

29   information;

30   - deriving from the media information carried in each

31   received packet auxiliary information pertaining to

32   the received packet;

32

1   - generating a stream of composite packets, each said

2   composite packet being produced from the media

3   information carried in a respective received packet

4   and the auxiliary information pertaining to the

5   respective received packet;

6   - releasing the stream of composite packets towards the

7   second network element.

8

9   32. The method defined in claim **31**, wherein deriving from

10   the media information in each received packet the

11   auxiliary information pertaining to the received packet

12   comprises:

13   - determining an identity of an end user device from

14   which the received packet originates.

15

16   33. The method defined in claim **32**, wherein the media

17   information carried in each received packet comprises

18   compressed media, the method further comprising:

19   - producing each composite packet by associating to the

20   compressed media carried in a respective received

21   packet the auxiliary information pertaining to the

22   respective received packet.

23

24   34. The method defined in claim **33**, wherein deriving from

25   the media information in each received packet the

26   auxiliary information pertaining to the received packet

27   comprises:

28   - converting into waveform data the compressed media

29   carried in the received packet;

30   - identifying at least one feature of the waveform data.

31

1   35.   The method defined in claim **34**, wherein the at least

2   one feature includes information useful by a conference

3   bridge in making an active talker selection.

4

5   36.   The method defined in claim **35**, wherein the at least

6   one feature includes a signal power of the waveform data.

7

8   37.   The method defined in claim **33**, wherein deriving from

9   the media information in each received packet the

10   auxiliary information pertaining to the received packet

11   comprises:

12   - determining an identity of an end user device from

13   which the received packet originates.

14

15   38.   The method defined in claim **31**, wherein the media

16   information carried in each received packet comprises

17   waveform data, wherein deriving from the media

18   information in each received packet the auxiliary

19   information pertaining to the received packet comprises

20   encoding into compressed media the waveform data carried

21   in the received packet, the method further comprising:

22   - producing each composite packet by associating to the

23   compressed media encoded from the waveform data

24   carried in a respective received packet the auxiliary

25   information pertaining to the respective received

26   packet.

27

28. 39.   The method defined in claim **38**, wherein deriving from

29   the media information in each received packet the

30   auxiliary information pertaining to the received packet

31   comprises:

32   - identifying at least one feature of the waveform data

33   carried in each packet.

34

1
2 40. The method defined in claim **39**, wherein the at least
3   one feature includes information useful by a conference
4   bridge in making an active talker selection.
5
6 41. The method defined in claim **40**, wherein the at least
7   one feature includes a signal power of the waveform data.
8
9 42. The method defined in claim **38**, wherein deriving from
10   the media information in each received packet the
11   auxiliary information pertaining to the received packet
12   comprises:
13   - determining an identity of an end user device from
14   which the received packet originates.
15
16 43. The method defined in claim **31**, wherein the media is
17   speech.
18
19 44. The method defined in claim **31**, wherein the media is
20   audio.
21
22 45. The method defined in claim **31**, wherein the media is
23   still imagery.
24
25 46. The method defined in claim **31**, wherein the media is
26   video.
27
28 47. Apparatus for processing data carried on a media path
29   between a first network element and a second network
30   element, comprising:
31   - means for receiving a stream of packets from the first
32   network element, each received packet carrying media
33   information;

35

1　　　- means for deriving from the media information carried

2　　　　in each received packet auxiliary information

3　　　　pertaining to the received packet;

4　　　- means for generating a stream of composite packets,

5　　　　each said composite packet being produced from the

6　　　　media information carried in a respective received

7　　　　packet and the auxiliary information pertaining to the

8　　　　respective received packet;

9　　　- means for releasing the stream of composite packets

10　　　　towards the second network element.

11

12　48.　Apparatus for processing data carried on a media path

13　　　between a first network element and a second network

14　　　element, comprising:

15　　　- a data interface operative to receive a stream of

16　　　　packets from the first network element and to release

17　　　　a stream of composite packets towards the second

18　　　　network element, each received packet carrying media

19　　　　information;

20　　　- a processing entity operative to derive from the media

21　　　　information carried in each received packet auxiliary

22　　　　information pertaining to the received packet;

23　　　- a combiner operative to produce each composite packet

24　　　　by combining the media information carried in a

25　　　　respective received packet and the auxiliary

26　　　　information pertaining to the respective received

27　　　　packet.

28

29　49.　The apparatus defined in claim **48,** wherein the media

30　　　information carried in each received packet comprises

31　　　compressed media, wherein the combiner being operative to

32　　　produce each composite packet comprises the combiner

33　　　being operative to associate to the compressed media

36

1 carried in the respective received packet the auxiliary

2 information pertaining to the respective received packet.

3

4 50. The apparatus defined in claim 49, wherein the

5 processing entity comprises:

6 - a decoder operative to decode into waveform data the

7 compressed media carried in the received packet; and

8 - a feature extractor operative to identify at least one

9 feature of the waveform data.

10

11 51. The apparatus defined in claim 50, wherein the at

12 least one feature includes information useful by a

13 conference bridge in making an active talker selection.

14

15 52. The apparatus defined in claim 51, wherein the feature

16 extractor is a signal power measurement unit operative to

17 measure a signal power of the waveform data.

18

19 53. The apparatus defined in claim 52, wherein the media

20 information carried in each received packet comprises

21 waveform data, wherein the processing entity comprises an

22 encoder operative to encode into compressed media the

23 waveform data carried in the received packet, wherein the

24 combiner being operative to produce each composite packet

25 comprises the combiner being operative to associate to

26 the compressed media encoded from the waveform data

27 carried in the respective received packet the auxiliary

28 information pertaining to the respective received packet.

29

30 54. The apparatus defined in claim 53, wherein the

31 processing entity comprises:

32 - a feature extractor operative to identify at least one

33 feature of the waveform data carried in each packet.

37

1

2   55. The apparatus defined in claim **54**, wherein the at

3   least one feature includes information useful by a

4   conference bridge in making an active talker selection.

5

6   56. The apparatus defined in claim **55**, wherein the feature

7   extractor is a signal power measurement unit operative to

8   measure a signal power of the waveform data.

9

10 57. A computer program product for use with a conference

11   bridge adapter located in a media path between a first

12   data element and a second data element, the computer

13   program product comprising a computer usable medium

14   having computer readable program code thereon, the

15   computer readable program code including:

16   - program code for receiving a stream of packets from

17   the first network element, each received packet

18   carrying media information;

19   - program code for deriving from the media information

20   carried in each received packet auxiliary information

21   pertaining to the received packet;

22   - program code for generating a stream of composite

23   packets, each said composite packet being produced

24   from the media information carried in a respective

25   received packet and the auxiliary information

26   pertaining to the respective received packet;

27   - program code for releasing the stream of composite

28   packets towards the second network element.

29

30 58. A method of establishing a media conference linking a

31   plurality of endpoints via a conference bridge adapted to

32   exchange composite packets carrying media information in

38

1 conjunction with auxiliary information pertaining to the
2 media information, comprising:
3 a) determining whether one or more of the endpoints is
4 characterized by an inability to exchange composite
5 packets with the conference bridge;
6 b) for at least one endpoint identified at a), routing
7 the media path from said endpoint via an adapter that
8 is capable of exchanging composite packets with the
9 conference bridge.
10
11 59. A teleconferencing network, comprising:
12 - a conference bridge operative to communicate composite
13 packets carrying media information in conjunction with
14 auxiliary information pertaining to the media
15 information;
16 - a plurality of conference endpoints, at least one of
17 which is characterized by an inability to exchange the
18 composite packets with the conference bridge;
19 - a bridge adapter located between the conference bridge
20 and at least one endpoint characterized by an
21 inability to exchange composite packets with the
22 conference bridge, the adapter being operative to
23 exchange composite packets with the conference bridge
24 and to exchange media information with said at least
25 one endpoint.
26
27 60. The teleconferencing network defined in claim **59**,
28 wherein at least one endpoint characterized by an
29 inability to exchange composite packets with the
30 conference bridge is an IP phone.
31

39